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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/277,335	03/26/1999	DEAN A. KLEIN	MPATENT.053A	3400

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EXAMINER	
LEE, CHI CHUNG	

ART UNIT	PAPER NUMBER
2131	

DATE MAILED: 10/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/277,335	KLEIN, DEAN A.	
	Examiner	Art Unit	
	Chi-Chung E Lee	2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 August 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) *11* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10 and 12-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *17* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims **1-10,12-14 remain rejected** under 35 U.S.C. 103(a) as being unpatentable over **O'Connor et al** (US 5,745,568 A) in view of **Computer Dictionary.**

As per claims 1,2, O'Connor is directed to a method of securing optical data storage media (i.e. CD-ROM, see column 2 lines 9-12) data for exclusive retrieval by a specified computer system designating for a selected hardware configuration. The invention is relates to the field of computer system manufacturing processes. O'Connor discloses:

a) the manufacturer builds the computer hardware and associates a hardware ID (i.e. identification code) to the computer hardware (i.e. components of the personal computer, see column 5 line 49-55). The ID is permanently recorded in a non-volatile memory present in the hardware and accessible using BIOS routine [see column 3 lines 33-39].

b) a routine for retrieving the hardware ID (i.e. retrieving the ID code form the memory) associated to the selected hardware of the computer system and using the hardware ID as an encryption key (i.e. generating a key derived from ID code, see column 2 lines 9-22).

c) generating a cryptographic key derived at least in part from the identification code (i.e. hardware ID, see column 2 lines 9-15).

d) encrypting the data (i.e. software program files) using the hardware ID as an encryption key and writing the encryption software program files to the storage medium [see column 8 lines 32-36].

O'Connor discloses the data is transmitted by the processor and is encrypted in the personal computer by the encryption hardware [see column 3 lines 58-65].

O'Connor does not expressly disclose of using the non-erasable memory for storing the hardware ID code.

As disclosed in Computer Dictionary, using either non-erasable memory or non-volatile memory, such as ROM, is well known prior to applicant's filing date. Motivation to use non-erasable memory, such as ROM, to store the hardware ID would have been known by one of ordinary skill in the art to prevent loss of ID code during either power failure or the user intent to change it.

As per claims 3-4, O'Connor discloses the hardware ID is permanently stored in the computer system hardware. O'Connor also discloses the verify software-hardware association step 134 [see column 3 line 54 - column 4 line16].

O'Connor does not expressly disclose the retrieving of ID code and verifying the key is performed without intervention of host computer.

It would have been obvious to person of ordinary skill in the art at the time invention was made to retrieve the hardware ID and verify the encryption key, which is derived from the hardware ID, automatically without intervention by the host processor.

Claim 5 has similar limitations as claim 1; therefore, it is rejected under the same rationale.

As per claim 6, the examiner takes official notice that use a serial data bus to connect the memory integrated circuit to logic circuit using a serial data bus is well known in the art because it provides a reliable effective method of transmit input data in the site of processing.

As per claims 7, 8, 12, O'Connor discloses a computer system comprising a processor (i.e. a host computing logic) and one data storage device (i.e. CD-ROM). O'Connor discloses a method of storing data on a CD-ROM (i.e. optical data storage media) in an encrypted form. O'Connor discloses the manufacturer builds the computer hardware and associates a hardware ID to the computer hardware (i.e. components of the personal computer, see column 5 line 49-55). The ID is permanently recorded in a non-volatile memory present in the hardware and accessible using BIOS routine (i.e. associated with processor, see column 3 lines 33-3). O'Connor discloses transmitting data (i.e. software)

from the processor in the computer system to encryption hardware in the computer system [see column 5 lines 1-12]. O'Connor discloses a routine for retrieving the hardware ID (i.e. retrieving the ID code form the memory) associated to the selected hardware of the computer system and using the hardware ID as an encryption key (i.e. generating a key derived from ID code, see column 2 lines 9-22). O'Connor also discloses encrypting the software program files (i.e. encrypting data) using the hardware ID as an encryption key and writing the encryption software program files to the storage medium [see column 8 lines 32-36].

O'Connor discloses the data is transmitted by the processor and is encrypted in the personal computer by the encryption hardware [see column 3 lines 58-65].

O'Connor differs from the claimed invention in that it fails to disclose use of non-erasable memory for storing the hardware ID code.

As disclosed in Computer Dictionary, using either non-erasable memory or non-volatile memory, such as ROM, is well known prior to applicant's filing date. Motivation to use non-erasable memory, such as ROM, to store the hardware ID would have been known by one of ordinary skill in the art to prevent loss of ID code during either power failure or the user intent to change it.

As per claim 9, the examiner asserts that if multiple bits were needed to store the number, then it would be obvious to make use of the necessary number of bits.

As per claim 10, O'Connor discloses the cryptographic key derived at least in part from the identification code (i.e. the hardware ID, see column 2 lines 9-15).

As per claim 13, O'Connor discloses the hardware ID is permanently recorded in a non-volatile memory present in the hardware and accessible using BIOS routine, see column 3 lines 33-39). O'Connor discloses a routine for retrieving the hardware ID (i.e. retrieving the ID code form the memory) associated to the selected hardware of the computer system and using the hardware ID as an encryption key (i.e. generating a key derived from ID code, see column 2 lines 9-22). It would have been obvious to person of ordinary skill in the art at the time invention that the encrypting device that is positioned in a data path between the CPU and the data storage medium.

As per claim 14, O'Connor discloses encrypting each of the plurality of selected software program files using the hardware identifier as an encryption key (i.e. all data that is transmitted to the storage is encrypted, see column 10 lines 65-67).

Response to Arguments

2. In response to applicant's argument that O'Conner does not teach or suggest as is recited in claim 1, as amended: "encrypting data, for storage on one of said data storage media using said cryptographic key, wherein the data is transmitted by the processor and is encrypted in the

personal computer by the encryption hardware", the examiner has addressed all the limitations in the claim 1 of the office action above.

3. In response to applicant's argument that O'Conner fails to teach or suggest the use of **dedicated** encryption hardware for encryption, the examiner requests the applicant point out where the limitation of "**dedicated** encryption hardware" has been claimed.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chi-Chung E Lee whose telephone number is 703-306-4153. The examiner can normally be reached on 8 am - 5 pm, Mon. - Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R Sheikh can be reached on 703-305-9648. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

C. L

Chi-Chung Lee
October 20, 2003

AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100